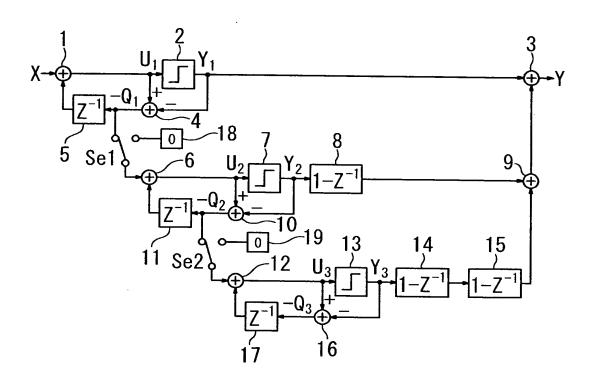
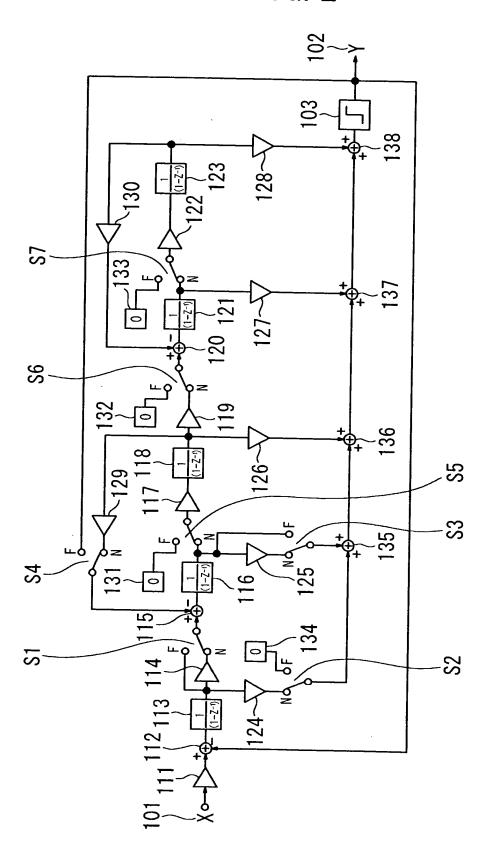
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FIG. 1



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FIG. 2



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FIG. 3

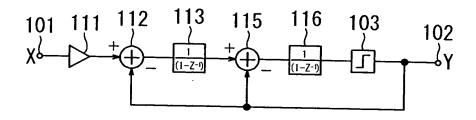


FIG. 4

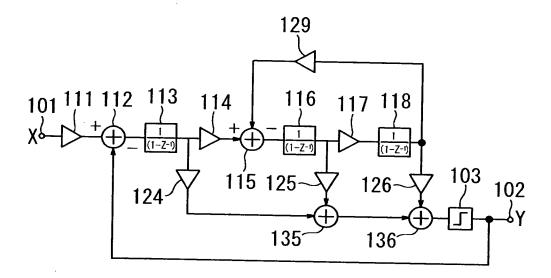


FIG. 5

|           | <b>S1</b> | \$2 | S3 | S4 | S5 | S6 | 87 | l |
|-----------|-----------|-----|----|----|----|----|----|---|
| 5th order | N         | N   | N  | N  | N  | N  | N  |   |
| 4th order | N         | N   | N  | N  | N  | N  | F  |   |
| 3rd order | N         | N   | N  | N  | N  | F  | F  |   |
| 2nd order | F         | F   | F  | F  | F  | F  | F  |   |

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FIG. 6

| sampling frequency | optimum order     |  |  |
|--------------------|-------------------|--|--|
| 8KHz               | second            |  |  |
| 16KHz              | fourth            |  |  |
| 32KHz              | fifth             |  |  |
| 44. 1KHz           | fourth (or fifth) |  |  |
| 48KHz              | fifth             |  |  |

FIG. 7

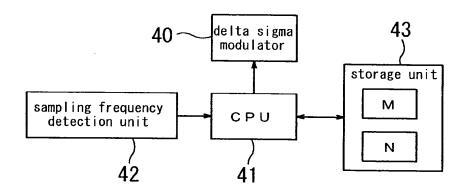


FIG. 8

50
51
52
53

over-sampling circuit waveform shaper

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FIG. 9

